

# The Riemann boundary value problem on non-rectifiable curves and related questions

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## Abstract

We present a brief survey of results on the Riemann boundary value problem for non-rectifiable curves. The solution of the Riemann problem for piecewise smooth curves and arcs was one of the well-known achievements of the complex analysis in the first half of the twentieth century. But, for non-rectifiable contours, the problem was solved only during the latter three decades. In the present paper, we consider this solution and certain related questions such as various generalizations of the Cauchy integral over non-rectifiable curves. We describe the technique of investigations, recent results and open problems. © 2013 © 2013 Taylor & Francis.

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## Keywords

Cauchy integral, metric dimensions, non-rectifiable curve, Riemann boundary value problem